LISTING OF CLAIMS

1 (original) A method of identifying individuals predisposed schizophrenia comprising:

a) providing a nucleic acid from a human subject; wherein said nucleic acid comprises an α7 allele;

b) detecting the presence of at least one polymorphism within said α7 allele; and

c) correlating the presence of said at least one polymorphism with a predisposition to schizophrenia.

2 (original) The method of Claim 1, wherein said at least one polymorphism comprises one or more of a –241 A to G substitution, a –194 G to C substitution, a –191 G to A substitution, a –190 G insertion, a –180 G to C substitution, a –178 CGGGGG insertion, a –178 G deletion, a –166 C to T substitution, a –143 G to A substitution, a –140 CGGG insertion, a –93 C to G substitution, a –92 G to A substitution, a –86 C to T substitution, and a –46 G to T substitution.

3 (original) The method of Claim 2, wherein said at least one polymorphism comprises two or more of a –241 A to G substitution, a –194 G to C substitution, a –191 G to A substitution, a –190 G insertion, a –180 G to C substitution, a –178 CGGGGG insertion, a –178 G deletion, a –166 C to T substitution, a –143 G to A substitution, a –140 CGGG insertion, a –93 C to G substitution, a –92 G to A substitution, a –86 C to T substitution, and a –46 G to T substitution.

4 (original) The method of Claim 1, wherein said at least one polymorphism comprises a promoter polymorphism that contributes to reduced α7 transcription.

5 (original) The method of Claim 1, wherein said detecting step is accomplished using at least one technique selected from the group consisting of polymerase chain reaction, heteroduplex analysis, single stand conformational polymorphism analysis, denaturing high

performance liquid chromatography, ligase chain reaction, comparative genome hybridisation, Southern blotting and sequencing.

6 (original) The method of Claim 1, wherein said nucleic acid from said subject is derived from a sample selected from the group consisting of a biopsy material and blood.

7 (original) The method of Claim 1, further comprising step d) providing a diagnosis to said subject based on the presence or absence of said at least one polymorphism.

8 (original) The method of Claim 7, wherein said diagnosis differentiates schizophrenia from other forms of mental illness.

9 (original) A kit for determining if a subject is predisposed to schizophrenia, comprising:

a) at least one reagent suitable for use in specifically detecting at least one polymorphism in an α7 allele; and

b) instructions for determining whether a subject is predisposed to schizophrenia.

10 (original) The kit of Claim 9, wherein said at least one polymorphism comprises one or more of a –241 A to G substitution, a –194 G to C substitution, a –191 G to A substitution, a –190 G insertion, a –180 G to C substitution, a –178 CGGGGG insertion, a –178 G deletion, a –166 C to T substitution, a –143 G to A substitution, a –140 CGGG insertion, a –93 C to G substitution, a –92 G to A substitution, a –86 C to T substitution, and a –46 G to T substitution.

11 (original) The kit of Claim 9, wherein said at least one polymorphism comprises a promoter polymorphism that contributes to reduced α7 transcription.

12 (original) The kit of Claim 9, wherein said at least one reagent comprises a nucleic acid probe that hybridizes under stringent conditions to a nucleic acid sequence selected from the group consisting of the coding strand of the α7 gene, and the noncoding strand of the α7 gene.

13 (original) The kit of Claim 9, wherein said at least one reagent comprises a sense primer and an antisense primer flanking said at least one polymorphism in said α7 allele.

14 (original) The kit of Claim 13, wherein at least one of said primers comprises a fluorescent tag.

15 (original) The kit of Claim 9, wherein said instructions comprise instructions required by the United States Food and Drug Administration for use in *in vitro* diagnostic products.

16 (original) A method of screening compounds, comprising:

a) providing:
   i) at least one cell comprising an α7 allele with at least one polymorphism, and
   ii) one or more test compounds; and
b) contacting said at least one cell with said test compound; and
c) detecting a change in α7 expression in said at least one cell in the presence of said test compound relative to the absence of said test compound.

17 (original) The method of Claim 16, wherein said detecting comprises detecting α7 mRNA.

18 (original) The method of Claim 16, wherein said detecting comprises detecting α7 polypeptide.

19 (original) The method of Claim 16, wherein said cell is a neuroblastoma cell.

20 (original) The method of Claim 16, wherein said test compound comprises a drug.

21 (original) The method of Claim 16, wherein said at least one polymorphism comprises a promoter polymorphism that contributes to reduced α7 transcription.

22 (original) A method of identifying individuals predisposed to schizophrenia, comprising:

a) providing a nucleic acid sample from a subject, said sample containing an α7 allele;

b) correlating the identity of said α7 allele with a predisposition to schizophrenia.

23 (original) The method of Claim 22, wherein said identity of said α7 allele is determined using at least one technique selected from the group consisting of polymerase chain reaction, heteroduplex analysis, single stand conformational polymorphism analysis, denaturing high performance liquid chromatography, ligase chain reaction, comparative genome hybridisation, Southern blotting and sequencing.

24 (original) The method of Claim 22, wherein said nucleic acid sample from said subject is selected from the group consisting of a biopsy material and blood.

25 (original) The method of Claim 22, further comprising step c) providing a diagnosis to said subject based on the identity of said α7 allele.